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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/667,383
Filing Date: September 23, 2003
Appellant(s): YOON, JONG-HYUN

_____
Esther H. Chong
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08/25/2008 appealing from the Office action

mailed 02/26/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

7,086,077	Giammaressi	8-2006
2003/0154480	Goldthwaite	8-2003

2006/0015574   Seed   1-2006

6,917,569   Lam   7-2005

6,189,071   Bachmat   2-2001

5,822,530   Brown   10-1998

5,671,377   Bleidt   9-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims **2-4, 8 and 11-18** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al.**

(US Patent Application Publication 2003/0154480), herein Goldthwaite, and further in

view of **Seed et al. (US Patent Application Publication 2006/0015574)**, herein Seed.

Consider **claim 2**, Giammaressi clearly teaches a method for outputting A/V
streams onto a screen in response to a user's request by a network which
includes a server for outputting audio/video streams and plural renderers
connected to the server through a network, **(Fig. 1)** comprising:

a step in which a renderer connected to a server requests A/V streams;
(Fig. 2 Step 208, column 6 lines 14-15)

a step in which the server judges whether A/V streams can be outputted in response to the request from the renderer; **(Fig. 2 Step 214, column 6 lines 30-31)**

a step in which the server provides the A/V streams to the renderer sequentially or simultaneously if the A/V stream can be outputted, **(Fig. 2 Step 222)**

in the step of judging whether A/V streams can be outputted, the server compares transmission time of entire A/V streams and A/V stream transmission time according to a defined reproduction capability of the server required for reproducing A/V streams, and then judges whether the A/V streams can be outputted. **(Fig. 2: At step 210 the bandwidth required to transmit the requested program is determined, column 6 lines 14-18. At step 214 the required bandwidth is compared to the bandwidth available from the server resources, column 6 lines 24-44 Giammaressi.)**

Giammaressi further teaches the network may be any conventional broadband network. **(column 5 lines 8-10)**

However, Giammaressi does not explicitly teach the network being a home network.

In an analogous art, Goldthwaite, which discloses a system for distributing media from a server, clearly teaches a home network. **([0024])**

Because both Giammaressi and Goldthwaite teach methods of transferring A/V data over a network, it would have been obvious to one of ordinary skill in the art to substitute the home network of Goldthwaite into the system of Giammaressi to achieve the predictable result of transferring A/V data from the server to a client.

Giammaressi combined with Goldthwaite further teaches denying the subscriber access to the A/V data if insufficient bandwidth is detected. **(column 7 lines 2-8 Giammaressi)**

However, Giammaressi combined with Goldthwaite does not explicitly teach outputting a server unavailable message to the render.

In an analogous art, Seed, which discloses a system for distributing media from a server, clearly teaches outputting an unavailable message if the server judges that the A/V streams can not be outputted. **([0029])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite by outputting an unavailable message, as taught by Seed, for the benefit of notifying the user that a particular content is unavailable.

Consider **claim 3**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches if the server's transmission time is slower than the defined transmission time, the server transfers server unavailableness message to the renderer. **([0029] Seed)**

Consider **claim 4**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the A/V stream transmission time is time taken for the header to simultaneously read A/V streams stored in a storing medium and output them. **(Fig. 1: The delivery rates of the read circuitry of the storage unit 114-1 are taken into account, column 3 lines 41-45 and column 6 lines 24-29 Giammaressi. The storage device utilizes mechanical head movements, column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 8**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches in the step of judging whether A/V streams can be outputted, **(Fig. 2: Step 214 Giammaressi)** a reproduction processing capability of the server including a CPU and a memory is judged. **(Fig. 1: The determination is made with respect to the capabilities of video server resources, which includes Information server 108, column 6 lines 24-26 Giammaressi. The information server 108 contains CPU 110 and memory 112, column 2 lines 51-54 Giammaressi.)**

Consider **claim 11**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the server is a medium reproducing unit for reproducing an optical recording medium, a hard disk medium or a medium including the optical recording medium and the hard disk medium. **(Fig. 1: Data storage 114 may be a magnetic disk drive or an optical disk drive, column 3 lines 2-7 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 12**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the medium reproducing unit reads A/V streams stored in certain positions of the recording medium through at least one or more headers performing a mechanical position movement. **(The storage device records information in "block-serial" form and utilizes mechanical head movements, column 1 lines 40-45 and column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 13**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the renderer is a display unit for outputting A/V streams provided from the server on a screen. **(Fig. 1 display device 140, column 5 lines 23-27 Giammaressi.)**

Consider **claim 14**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the home network is a cable communication network on the basis of Ethernet or home PNA, IEEE1394. **([0026] Goldthwaite)**

Consider **claim 15**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the home network is a wireless communication network on the basis of a bluetooth, Wireless1394, HomeRF. **([0026] Goldthwaite)**

Consider **claim 16**, see claim 4.

Consider **claim 17**, see claim 3.

Consider **claim 18**, see claim 2.

3.   Claims **6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574) and further in view of **Lam et al. (US Patent**

6,917,569), herein Lam.

Consider **claim 6**, Giammaressi clearly teaches a method for outputting A/V streams onto a screen in response to a user's request by a network which includes a server for outputting audio/video streams and plural renderers connected to the server through a network, **(Fig. 1)** comprising:

a step in which a renderer connected to a server requests A/V streams; **(Fig. 2 Step 208, column 6 lines 14-15)**

a step in which the server judges whether A/V streams can be outputted in response to the request from the renderer; **(Fig. 2 Step 214, column 6 lines 30-31)**

a step in which the server provides the A/V streams to the renderer sequentially or simultaneously if the A/V stream can be outputted, **(Fig. 2 Step 222)**

in the step of judging whether A/V streams can be outputted, the server compares transmission time of entire A/V streams and A/V stream transmission time according to a defined reproduction capability of the server required for reproducing A/V streams, and then judges whether the A/V streams can be outputted. **(Fig. 2: At step 210 the bandwidth required to transmit the requested program is determined, column 6 lines 14-18. At step 214 the required bandwidth is compared to the bandwidth available from the server resources, column 6 lines 24-44 Giammaressi.)**

Giammaressi further teaches the network may be any conventional broadband network. **(column 5 lines 8-10)**

However, Giammaressi does not explicitly teach the network being a home network.

In an analogous art, Goldthwaite, which discloses a system for distributing media from a server, clearly teaches a home network. **([0024])**

Because both Giammaressi and Goldthwaite teach methods of transferring A/V data over a network, it would have been obvious to one of ordinary skill in the art to substitute the home network of Goldthwaite into the system of Giammaressi to achieve the predictable result of transferring A/V data from the server to a client.

Giammaressi combined with Goldthwaite further teaches denying the subscriber access to the A/V data if insufficient bandwidth is detected. **(column 7 lines 2-8 Giammaressi)**

However, Giammaressi combined with Goldthwaite does not explicitly teach outputting a server unavailable message to the render.

In an analogous art, Seed, which discloses a system for distributing media from a server, clearly teaches outputting an unavailable message if the server judges that the A/V streams can not be outputted. **([0029])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite by outputting an unavailable message, as taught by Seed, for the benefit of notifying the user that a particular content is unavailable.

Giammaressi combined with Goldthwaite and Seed further teach the bandwidth available from the server resources includes the read time of data from the storage units. **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)**

However, Giammaressi combined with Goldthwaite and Seed does not explicitly teach determining the read time from the storage unit based on a distance between two memory locations.

In an analogous art, Lam, which discloses a system for accessing data from a physical disk storage device, clearly teaches determining seek times based the distance between two memory locations. **(column 3 lines 2-3)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed by determining the transfer rate based on the distance between memory locations, as taught by Lam, for the benefit of providing dynamic disk allocation based on actual usage (see column 2 lines 64-65 Lam.)

Consider **claim 7**, Giammaressi combined with Goldthwaite, Seed and Lam, as in claim 6, clearly teaches the server judges a time point where the overall transfer rate for the current reproduction becomes slower than the predetermined transfer rate, **(column 7 lines 2-8 Giammaressi)** and transfers the server unavailableness message sequentially or simultaneously to connected renderers. **([0029] Seed)**

4.   Claims **5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574), as applied to claim 2 above, and further in

view of **Bachmat (US Patent 6,189,071)**.

Consider **claim 5**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the stream transmission time includes the read time of data from the storage units. **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 2, does not explicitly teach the A/V stream transmission time signifies total amount of time obtained by adding the a seek time taken for the header to move to an address where the A/V stream is positioned, a head activation time taken for the

header to select a track in which the A/V stream is stored, a rotation latency time taken for the header to be positioned at a desired sector, and a time taken for the A/V stream read through the header to be transferred to the memory.

In an analogous art, Bachmat, which discloses a system for accessing data from a physical disk storage device, clearly teaches the A/V stream transmission time signifies total amount of time obtained by adding the a seek time taken for the header to move to an address where the A/V stream is positioned, a head activation time taken for the header to select a track in which the A/V stream is stored, a rotation latency time taken for the header to be positioned at a desired sector, and a time taken for the A/V stream read through the header to be transferred to the memory. **(column 11 lines 45-49)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 2, by determining the transfer time based on the sum of the seek time, latency times and memory transfer times, as taught by Bachmat, for the benefit of providing dynamic disk allocation based on actual usage (see column 3 lines 1-7 Bachmat.)

Consider **claim 9**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches in the step of judging whether A/V streams can be outputted, the number of A/V streams that can be finally outputted is judged on the basis of the storage units bandwidth requirements and the server's reproduction processing capability, **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)** in order to determine whether to transfer **(column 7 lines 2-8 Giammaressi)** the server unavailableness message. **([0029] Seed)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 2, does not explicitly teach the storage units bandwidth requirements include the header movement speed, header reading speed.

In an analogous art, Bachmat, which discloses a system for accessing data from a physical disk storage device, clearly teaches the storage units bandwidth requirements include the header movement speed, header reading speed. **(column 10 lines 47-52)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 2, by determining the transfer time based on the sum of the seek time, latency times and memory transfer times, as taught by Bachmat, for the benefit of providing dynamic disk allocation based on actual usage (see column 3 lines 1-7 Bachmat.)

5.   Claim **10** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574), as applied to claim 2 above, and further in

view of **Brown (US Patent 5,822,530).**

> Consider **claim 10**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches in the step of outputting the server unavailableness message, if some plural renderers are additionally connected to the server and request A/V streams, the A/V streams are transferred from the server to the renderers in order of the plural renderers **(The system includes multiple set-top terminals, column 2 line 65 to column 3 line 1 Giammaressi.)** stream transmission request. **(Fig. 2: After allowing a video stream to be transmitted in step 216 the server returns to step 208 to wait for another programming request, the server processes each request before addressing a subsequent request, column 6 lines 30-44 Giammaressi.)**

> Giammaressi combined with Goldthwaite and Seed, as in claim 2, further teaches the server outputs the server unavailableness message to a renderer, which has requested the A/V streams. **([0029] Seed)**

> However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests.

> In an analogous art, Brown, which discloses a system for determining if video-on-demand requests can be granted, clearly teaches from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests. **(If the VOD customer count reaches its maximum the video request is denied, column 6 lines 20-24.)**

> Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 2, by denying video requests from a time point when the server judges transmission of video streams is not possible, as taught by Brown, for the benefit of preventing system resources from being constrained (see column 2 lines 46-61 Brown).

(10) Response to Argument

 1. Claims 2-4, 8 and 11-18

 In response to appellant's argument (Appeal Brief pg. 13 line 19 to pg. 15 line 21)
that Giammaressi (US 7,086,077) does not disclose comparing the transmission time of
entire A/V streams and A/V stream transmission time according to a defined
reproduction capability of the server required for reproducing A/V streams, and then
judges whether the A/V streams can be outputted, the examiner respectfully disagrees.
Appellant indicates the comparison step of the claims is described on page 8 lines 13-
20 of the disclosure, Appeal Brief pg. 7 line 16. This portion of the disclosure describes
comparing the overall transfer rate of the A/V streams being reproduced, analogous to
"transmission time of entire A/V streams" in the claims, to a predetermined A/V stream
transfer rate, analogous to "transmission time according to a defined reproduction
capability of the server" in the claims. As a result of this comparison it is determined if a
requested A/V stream will be outputted. Giammaressi discloses a system in which the
total load placed on the system resources, i.e. bandwidth used by the video streams
currently being reproduced, is compared to the bandwidth required for a requested
video signal. The system resources include the storage unit 114-1, which is limited by
the read circuitry delivery rate (col. 3 lines 41-45). If the system contains sufficient
bandwidth to satisfy the request the video signal is outputted. (col. 6 lines 14-44)
Giammaressi defines bandwidth as a transmission rate ("an appropriate bandwidth of 9
Mbps", col. 6 lines 37-38). This explicitly discloses the features currently claimed by the
appellant. Furthermore, appellant provides no specific explanation of how Giammaressi

differs from the currently claimed invention except for the vague accusation that the Office has not met its burden for making a prima facie case.

In response to appellant's argument (Appeal Brief pg. 16 line 1 to pg. 17 line 1) against the Advisory Action mailed on 6/18/2008 and the definition of bandwidth provided by the 1997 edition of the Microsoft Computer Dictionary the examiner notes that bandwidth is defined as equivalent to transfer rate. Appellant defines the claimed "transmission time" as transfer rates on page 8 lines 13-20 of the disclosure. Therefore, the bandwidth disclosed by Giammaressi is equivalent to the transfer rates disclosed by appellant.

In response to appellant's argument (Appeal Brief pg. 17 line 1 to pg. 18 line 4) that the combination of Goldthwaite (US 2003/0154480) with Giammaressi is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The Supreme Court Decision in KSR International Co. v. Teleflex Inc., 550 U.S.-, 82 USPQ2d 1385 (2007) allows for the simple substitution of one known, equivalent element for another to obtain predictable results. Giammaressi clearly discloses that the network can include any conventional broadband communication networks then lists several examples. Goldthwaite teaches conventional broadband networks including a home network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the home network of Goldthwaite for the network of Giammaressi.

2. Claims 6 and 7

In response to appellant's argument (Remarks pg. 19 line 19 to pg. 20 line 15) that one of ordinary skill in the art would not be motivated to modify the combination of Giammaressi, Goldthwaite and Seed (US 2006/0015574) with Lam (US 6,917,569) because the base reference combination never discusses managing a disk array storage device, the examiner respectfully disagrees. Bleidt (US 5,671,377), which is incorporated by Giammaressi clearly discloses an array of disk drives can be used for the data storage unit (Fig. 1: 114-1 Giammaressi).

In response to appellant's argument (Remarks pg. 20 line 16 to pg. 21 line 8) that "[the office action] improperly redefines the invention and merely tries to render that non-claimed invention obvious", the examiner respectfully disagrees. The limitations common to claims 2 and 6 are met as described above and as in the detailed rejection. Furthermore, Giammaressi teaches the time taken to read data from the storage effects the amount of data that can be transferred from the server. Lam shows that the distance between two memory locations effects the read time of the storage device. Therefore, the combination teaches the transfer rate of a requested stream is dependent upon the locations in memory of the requested stream and the currently produced streams.

3. Claims 5 and 9

In response to appellant's argument (Remarks pg. 22 line 5 to pg. 23 line 4) please refer to the above arguments concering the use of a disk array storage device and the disclosure of the subject matter of claim 2.

　　　　4. Claim 10

In response to appellant's argument (Remarks pg. 23 line 5 to line 21) please refer to the above arguments.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/John R Schnurr/
Examiner, Art Unit 2421

Conferees:

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423